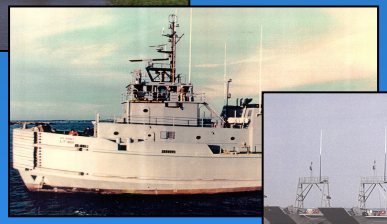
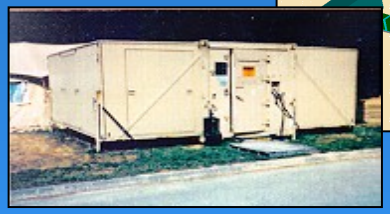
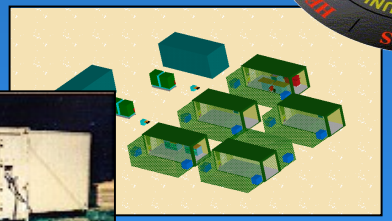
JLOTS SYMPOSIUM VI

PM Army Watercraft Systems



Jim Follkl
Acting PM
Army Watercraft Systems

29-31 Jan. 2001

Tank-automotive & Armaments COMmand

Agenda

Watercraft Mission

PM Organization

Material Modernization Strategy

Selected Procurements

- Logistics Support Vessel (LSV)
- Modular Causeway System (MCS)
- Command, Control, Communications, Computers and Intelligence (C4I)

U.S. Army Watercraft

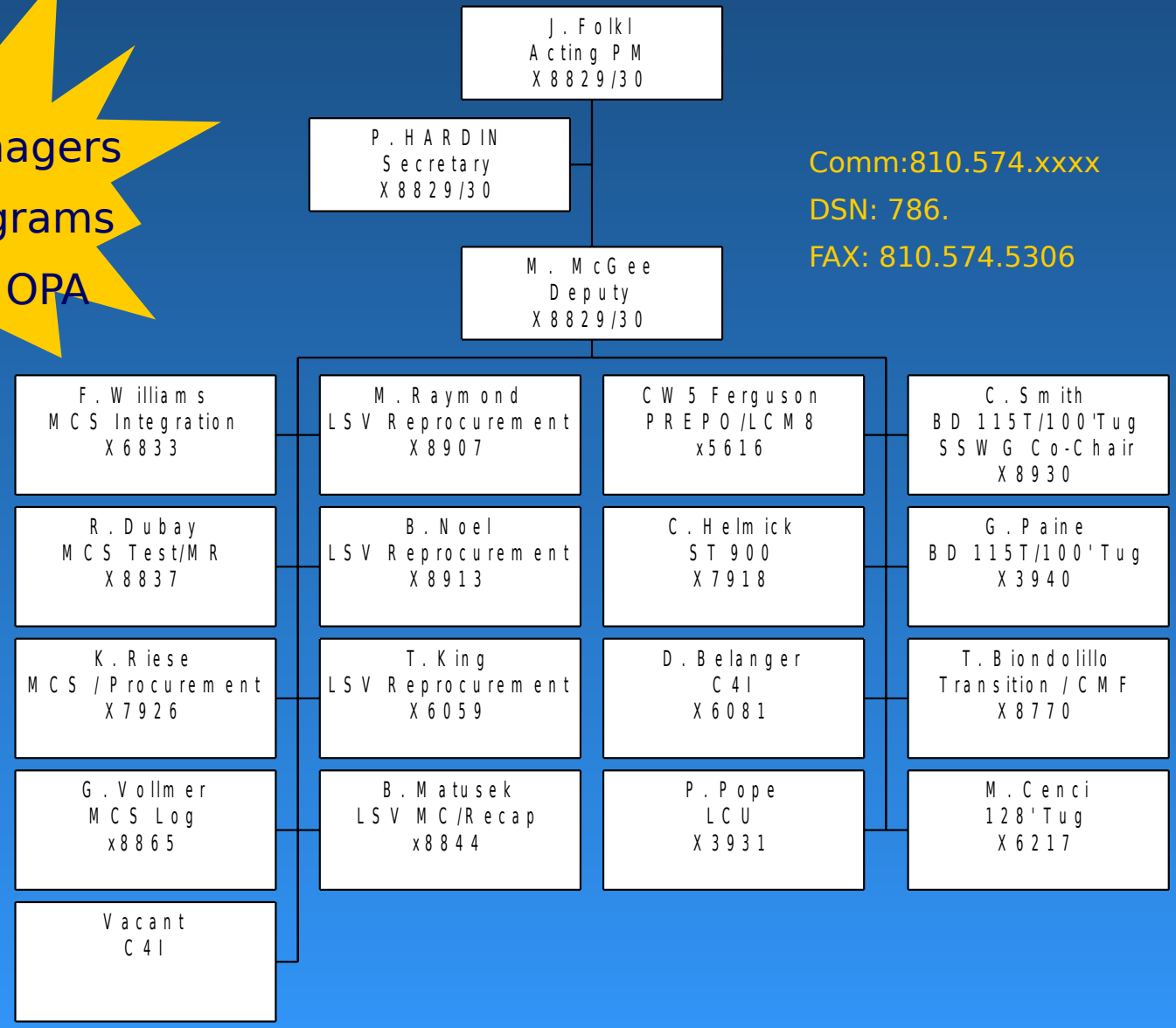
- 295 Vessels Worldwide
- Critical 21st Century Force Projection Enabler
- Supports LOG Component of the Army Vision
  - Joint Logistics Over the Shore
  - Intra-Theater Lift
  - Port Opening

PM Army Watercraft Systems

17 Managers

13 Programs

$535M OPA



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Materiel Modernization Strate

- ***Divest*** **craft that no longer support current requirements**
- ***Modernize*** **and *Sustain* the existing fleet through Modifications and Enhancements**
- ***Invest*** **R&D and Procurement in Future Capabilities that significantly enhance our capability**

Divest

...craft that no longer support requirements

CRAFT	Recommended Quantity to Divest
LCU-1600	10
LCM 8	28
LARC LX	17
Large Tugs	16
Small Tugs	12
Barge Derrick (89T)	7
Floating Machine Shop	1
Barges	40
SLWT (NL)	4
TOTAL	135

Now

$13 M Average Per Year OCCM Cost Avoidance

Sales Program $ Rolled Into Watercraft Lines

OCCM = On Condition Cyclic Maintenance

Reduce Army / Theater Log Spt Requirements

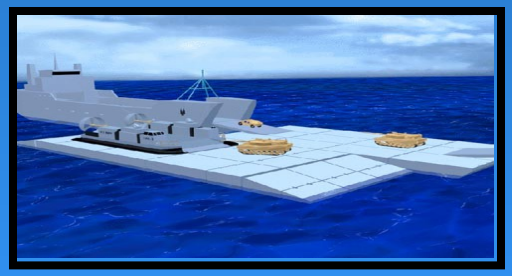
Modernize …the current fleet

- **Modifications & Enhancements**
  - ✓ Logistics Support Vessel
  - ✓ Landing Craft Utility 2000
  - ✓ 128’ Large Tug
  - ✓ Landing Craft, Mechanized LCM-8 Mod 2
- **C4I Modernization**
  - ✓ Secure SATCOM and *LOS* Tactical Communications
  - ✓ Common Operating Picture (GCCS-M)
  - ✓ Integrated Bridge System

Invest …in future capabilities

Theater Support Vessel (TSV) (2007 - 2020)

Rapidly Installed Breakwater (RIB) (2005-2007)



Joint Modular Lighterage Syste (JMLS) (2004 - 2007)

Harbor Master C2 Center (HCC (2004 - 2007)

Improve Operational Jointness

The Road Ahead

- - Continue work with CINCs, ASCCs and MACOM staffs on forward stationing and forward positioning concepts (Sep - Nov 00)
- - Finalize cost analysis and CINC/ASCC forward stationing and forward positioning plans (Jan 01)
- - Engage and seek approval from the CINCs on the concept plan (Feb/Mar 01)
- - **Obtain final plan approval from DA (Apr 01)**
- - Implement watercraft restructuring concept

Watercraft Priorities (1 - N)

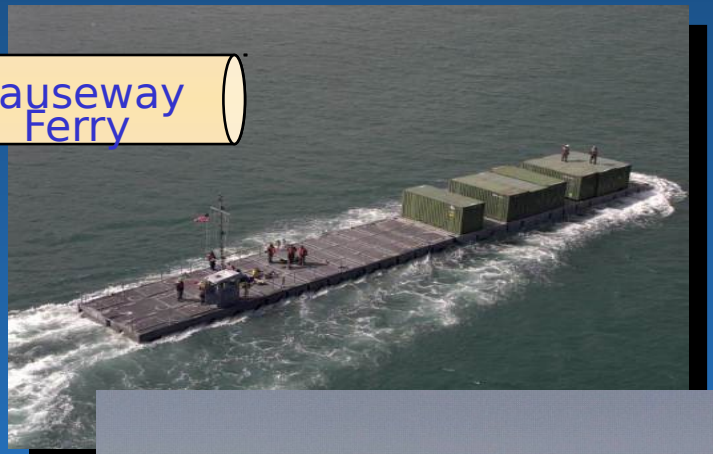
- #1 Theater Support Vessel (TSV)
- **#2** Logistics Support Vessel (LSV)
- **#3** Command, Control, Communication, Computers & Intelligence (C4I)
- #4 Harbormaster Command & Control Center (HCCC)
- #5 LSV Extended Service Program (ESP)
- **#6** JMLS Roll-On / Roll - Off Discharge Facility (RRDF)
- #7 LCU 2000 Material Changes
- #8 LSV Material Changes
- #9 LT 128 Material Changes
- #10 JMLS Floating Causeway (FC)
- #11 LCM 8 Mod 2
- #12 Small Tug (ST-900)
- #13 JMLS Causeway Ferry (CF)
- #14 Rapidly Installed Breakwater (RIB)
- #15 Barge Derrick (BD) 115T
- #16 Containerized Maintenance Facility (CMF)

As Of Jan 2001
Source: DCD

Modular Causeway System (MCS)

Roll-On/Roll-Off Discharge Facility

Causeway Ferry



Floating Causeway

Warping Tug

- The MCS Provides an Interface Between Strategic Sealift Ships, U.S. Army Lighterage and the Shore for Transfer of Cargo in a JLOTS Environment. The 4 Sub-Systems are: RRDF / CF / FC and WT
- Priority: # 6/16
- SAMs: F. Williams / R. Dubay / K. Riese / G. Vollmer

MCS Overview

- The Modular Causeway System (MCS) Provides an Interface Between Strategic Sealift Ships, U.S. Army Lighterage and the Shore for the Transfer of Cargo in a Joint Logistics Over the Shore (JLOTS) Environment
- The MCS Consists of Four Sub-Systems Composed of Modular Sections in Different Combinations
  - Roll-On/Roll-Off Discharge Facility (RRDF)
    - Interface Platform Between RO/RO Ships and Army Lighterage
      - Crew: 31
  - Warping Tug (WT)
    - Self-Propelled Craft Used to Maneuver Sub-Systems
  - Causeway Ferry (CF)
    - Transports Limited Cargo From Ship to Shore
      - Crew:16
  - Floating Causeway (FC)
    - Provides a Docking Pierhead at Beach for Cargo Discharge
      - Crew: 33

MCS Operational Requirements

- Components Offloaded, Assembled, Disassembled, Backloaded in Sea States 0 (Threshold) or 2 (Objective)
- Operable Through Sea State 2 (Threshold) or 3 (Objective)
- Interoperable With Existing JLOTS Vessels
- ISO Container Transportable
- NBC Contamination Survivable
- Performs 20 Hrs/day for Two Consecutive 90 Day Periods
- MTBOMF = 552 Hours (Threshold) or 2000 Hours (Objective)
- No New MOS to Operate or Maintain
- AAO:

	AC	RC	PREPO	TOTAL	O/H
RRDF	3	1	3	7	2
CF	7 6	4	17	6	
FC	2 2	2	6	2	

MCS FY01 Procurement

- One Year Requirements Contract
  - 1 RRDF, 1FC, 4 WTs
  - 2 Option Periods
- RFP Closed 5 Jan. 01
- Forecasted Award May 01
- Future Procurements: JMLS

Logistic Support Vessel (LSV) - Reprocurement

- The LSV Provides Worldwide Transport of Combat Vehicles and Sustainment Cargo. It is the USA Primary LOTS/JLOTS Vessel.
- Characteristics: Length 273' / Beam 60' / Payload 2000 St / Range 6,500 nm at 11.5 Knots / Crew 32 / Draft 12'/ Last Vessel in Service 1994.
- Requirements: 9 / 6 Fielded
- Priority: #2/16

SAMS: M. Raymond , B. Noel, T. King

LSV Re-Procurement

- Purchase Description
- RFP issued 18 October 00
- Close 31 Jan. 01
- Forecasted Award 31 May 01
- 2 Option Periods

LSV Performance Enhancements

- Improved Bow Thruster
- Berthing for Crew of 32
- Integrated Bridge
- FM200 Fire Extinguishing System
- 15 Knot Objective
- Improved Seakeeping

Command, Control, Communications Computers and Intelligence (C4I)

- C4I Installation Package provides state of the art Communications (secure/non-secure) Equipment, Navigational Equipment and Safety of Life at Sea Electronics. Priority #3/16
- Characteristics
  - Achieve 100% interoperability through complete replacement of Communications and Navigational Suites on LSV, LCU-2000, and LT-128 class vessels
  - Add IBS Capability to LSV, LCU 2000 and LT-128 class vessels
- SAM: D. Belanger

- Modification Program
  - FY01-07
  - LSV, LCU2000 and LT128’ Class Vessels
  - Integrated Bridge System (IBS) + Commo
  - LSV 1st priority

- FY01:
  - Prototype LSV #6 (Install March - April)
  - Prototype LT 128’ Tug (Install 4QFY01)

- Team: NSWC - Design / Procure / Test
  Conley & Assoc. - Install / Training / Manuals / MWO

Watercraft C⁴I Suite

Communications

- Subsystems capable of Voice/Data; Secure and non-Secure
- System patching eliminates most “Stovepipes”
- Improves Situational Awareness
- Open Architecture System
- GMDSS installations incorporated into C⁴I Upgrades so as to meet SOLAS requirements

System Components:

(2) LST-5D: UHF LOS, SATCOM(TACSAT and DAMA)

◆ AN/VRC-94D/F: VHF (Lo/Hi Bands), SINCGARS, UHF LOS, SATCOM: TACSAT

(1) RF-5000: MF/HF ALE

(1) INMARSAT B: Commercial SATCOM, Telephone, STU/STE/KIV-7 provide NIPRNET/SIPRNET Connectivity

(1) GCCS-M: Provides COP Inject (near real-time data to CINC), provides situational awareness and Operator to Operator Messaging

(5) Remote Voice: Permits users to monitor and operate voice circuits from various stations in the pilot house.

◆ Antenna Patching: Allows multi-band use of radios and redundancy in case of casualty

(1) Data Switching: Lets operators use various peripherals with each “RF pipe” in order to configure any required circuit

Integrated Bridge System (IBS)

- Allows centralized access to shipboard sensors
- Enhances C² Capability
- Improves Safety, Navigation / Conning Efficiency
- Meets SOLAS requirements if properly configured
- Open Architecture System

System Components:

- Voyage Management System (VMS)
  - Superimposes sensor information on Electronic Navigational Charts
  - Expands Overall Mission Situational Awareness
- X–S Band Radar W/ARPA Upgrade
  - Ability to plot and track 80 surface targets simultaneously
  - Radar Overlay on to Electronic Navigational Charts
- Differential Global Position System
- ADG 3000 Autopilot
  - Adaptive Setting (Self Correcting)
  - Track Steering - VMS Interfacing

Army Watercraft

A Flexible and Responsive Fleet,
ecting and Sustaining America's For

Sail Army